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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,309	02/13/2002	David A. Egolf	52003198	8942

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EXAMINER

DUNCAN, MARC M

ART UNIT PAPER NUMBER

2113

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/075,309

Applicant(s)

EGOLF ET AL.

Examiner

Marc M Duncan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roffe et al in view of Ganesh et al.

Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 112***

Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the BSI" in line 4. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roffe et al in view of Ganesh et al.

Regarding claim 1:

Roffe teaches a transaction processing application operating within a global transaction processing protocol in the Abstract lines 1-3.

Roffe teaches coupling means to at least one other data processing node operating within the global transaction processing protocol for information exchange therewith in Fig. 13 "556."

Roffe teaches a memory storing database files subject to access during transaction processing in Fig. 13 "512" and "514."

Roffe teaches a database access application communicating with the transaction processing application to address files stored in the memory and transfer data between the transaction processing application and the memory in Fig. 13 and the Abstract lines 9-11. The fact that the database is accessed inherently requires a database access application.

Roffe teaches a file management system having exclusive access to reserved locations in the memory for reading and writing meta-data therein in Fig. 13 "540," "542," and col. 4 lines 21-25.

Roffe teaches node recovery means for recovering following a system failure which occurs during transaction processing on a database stored in said memory and faithfully rebuilding, after restart, the data processing node to the state immediately prior to the failure in col. 5 line 10-col. 6 line 7. The processing

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of the various transaction states, including the roll back and roll forward of the transactions, rebuilds the node to a state prior to failure.

Roffe teaches means to remove the results of incomplete non-"in-doubt" transactions in col. 5 lines 12-23.

Roffe teaches means to lock files which have been updated by "in-doubt" transactions in col. 5 lines 52-57.

Roffe teaches means for permitting normal access to the database after the operations carried out by the means set forth in subparagraphs G)1) and G)2) have completed in col. 5 lines 57-59.

Roffe does not explicitly teach the use of a two-phase commit procedure. Roffe does, however, teach the use of global transactions involving more than one database.

Ganesh teaches a two phase commit procedure in col. 1 lines 26-28.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the global transactions of Roffe with the two phase commit procedure of Ganesh.

One of ordinary skill in the art at the time of invention would have been motivated to combine the two teachings because Ganesh teaches that the use of a two-phase commit procedure ensures data consistency.

The combination of Roffe and Ganesh does not explicitly teach physical file access logic selectively coupling the memory and the database access application, the physical file access logic incorporating file protections which are

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controlled by the file management system. The combination does, however, teach a database access application that accesses database files in the memory.

The examiner takes official notice that the use of file access logic incorporating file protections that are controlled by the file management system was well-known and widely used in database systems by those of ordinary skill in that art at the time of invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine physical file access logic incorporating file protections with the database system of the combination.

One of ordinary skill in the art at the time of invention would have been motivated to combine the teachings because file access logic allows the database access application to retrieve requested file information and incorporating file protections allows the existence and integrity of files to be maintained.

Regarding claim 2:

Roffe teaches the meta-data for each file stored in memory during transaction processing includes an undo log, and the undo log entry for each file affected by a data processing node failure is accessed after restart to provide information essential to rebuilding the state of the transaction at the data processing node at the time of the failure in Fig. 13 "542," col. 5 lines 19-23 and col. 15 lines 57-67. The audit trail file is used to roll back intermediate changes made during a transaction. Rolling back intermediate changes is the same as an undo operation and therefore the audit trail file is equivalent to an undo log.

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Regarding claim 3:

Roffe teaches that the rebuild effected is to the "in-doubt" state in col. 15 lines 45-67.

Regarding claim 4:

Roffe teaches that the rebuild effected is to the "in-doubt" state.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not relied upon contains elements of the instant claims and/or represents a current state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc M Duncan whose telephone number is 703-305-4622. The examiner can normally be reached on M-T and TH-F 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 703-305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

md



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